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From the Edinburgh Medical Journal



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THE CORPORA CAVERNOSA.

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*Reprinted from the EDINBURGH MEDICAL JOURNAL. Edinburgh and
London, Young J. Pentland, September, 1898.*



PERSISTENT PRIAPISM, FROM THROMBOSIS OF THE CORPORA CAVERNOSA.

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the German Hospital, Dalston.*

THE following case of persistent priapism (lasting over four weeks) is distinguished from some other cases which have been described, in that it was not associated with leukæmia, gout, or (apparent) injury. I have no doubt, however, that in this case, as in the cases associated with leukæmia, gout, or injury, the persistent erection of the penis was primarily of local vascular, not of nervous origin.

CASE 1.—The patient, a German baker, æt. 46, was admitted under my care at the German Hospital, 19th April 1898. The history was that two days previously (17th April) he awoke at 4 A.M. with an erection of the penis (quite an unusual occurrence in his recollection). He remained in bed till eight o'clock, but the priapism did not disappear. He then got up and dressed himself, in spite of the inconvenience of getting about in his ordinary clothes. He felt pain in the penis, and the organ, he thinks, gradually increased in size. There was total absence of "libido sexualis." He had had no sexual intercourse during the preceding two weeks.

Past history.—Had had a chancre on the penis twelve years ago.

Gonorrhœa many years ago. Though rather subject to cough, he has enjoyed average health. Has been moderate in the use of alcohol. Has never previously had an attack of thrombosis in any part of his body. No history of gout or saturnism. Patient has had a certain amount of ozæna, probably since at least twenty years ago.

Condition in the hospital.—The patient is a rather sallow-looking man, rather below the normal in general nutrition. There is no evidence of gout or saturnism, nor are there any signs of active syphilis. On examination of the local complaint the penis was found to be erect, hard, and somewhat tender. No knots or lumps could be felt in the organ. No smegma preputii noticed. No urethral discharge, and no disease of the testicles or spermatic cord. On more careful examination of the penis it was found that the corpora cavernosa were alone concerned in the erection; they felt hard, as if they had been injected with plaster of Paris, whereas the corpus spongiosum and glans penis and vena dorsalis penis were all soft. The urine, soon after admission, was moderately acid, had a specific gravity of 1018, and contained no albumin or sugar. The bowels were rather confined. Nothing noteworthy found on examination of the thoracic and abdominal organs. No fever. On 1st May, the blood was examined by one of the resident medical officers, Dr. Krieg, who found that the hæmoglobin amounted to 90 per cent. of the normal; by microscopic examination he could detect nothing abnormal.

Treatment and progress of the case.—The main treatment consisted in rest in bed, the prevention of pressure from the bedclothes, fomentations of lead lotion to the affected part, and the use of iodide of potassium internally (10 grs. of the iodide with bicarbonate of sodium three times a day). The bowels were regulated with castor-oil. Later on, quinine and iron were given as a tonic. On 9th May the first decided improvement was noted. The proximal (pubic) portions of the corpora cavernosa were definitely softer and somewhat flexible. On 16th May the whole penis was much smaller, but there was still a little pain. On 19th May the penis was nearly natural again. On 23rd May the whole penis was quite flexible, and looked normal, but the corpora cavernosa still felt somewhat hard. This relative hardness was still observed when the patient was examined among the out-patients on 7th June; in other respects the man was well again. The affection had left no distinct knots or lumps (localised sclerosis of the corpora cavernosa).

In the present case the priapism was obviously not of nervous origin, either reflexly (from irritation of a vesical calculus, very acid urine, urethritis, etc.) or from disease of the central nervous system itself. If the disease had been nervous, we should not have found that the corpora cavernosa were the only parts involved in the erection. Moreover, in injuries and diseases of the central nervous system, when priapism forms a clinical feature of the case, the erection of the penis is often only intermittent. In nervous cases an intermittent priapism may be excited by the least recurrent irritation, such as movements of the bedclothes, the passage of a catheter, or any friction to the skin of the thigh.

In certain cases it is recorded that a so-called priapism¹ has lasted for very long periods, even years, but probably not without temporary intermittence and remittance (abatement in degree) from time to time.

The hardness of the corpora cavernosus, and the fact that the corpus spongiosum and the glans penis remained soft, pointed to thrombosis being the cause of the affection. The thrombosis might have been spontaneous, and due to the patient's somewhat cachectic condition, or it might have been determined by some slight vascular lesion, caused by the sudden distension of the organ with blood during erection.

As house-physician for Sir Dyce Duckworth, at St. Bartholomew's Hospital, I had the opportunity of seeing a case of persistent priapism, similar to the foregoing one in most respects, but definitely associated with gout.²

CASE 2.—The priapism lasted fully three weeks. The patient was æt. 42, and had some gouty inheritance. He was a glass-cutter, and in this way suffered from the effects of lead poisoning, and moreover drank a fair amount of malt liquor. Both of these circumstances favoured the development of gout. One morning at 7 A.M. he awoke with pain in the penis, and priapism. On admission to the hospital five days after this, in addition to the priapism there was evidence of actual gout, for the right wrist was tumid, red, and very tender, with some œdema. Sixteen days after the onset of the priapism, the erection began gradually to subside. By the end of the next week the penis had resumed its natural condition.

Sir Dyce Duckworth thought that gouty thrombosis was the cause of the priapism in the last mentioned case. He quotes two striking analogous examples from the literature of the subject. A shoemaker, æt. 45, suffered from annual attacks of gout. After an attack lasting three weeks, the gout suddenly left the feet and attacked the penis, which became erect and extremely painful. The urine contained occasionally small particles of reddish-yellow gravel. After three weeks the penis was free, but gout came on in the right foot and left elbow-joint. In fifteen days all the symptoms disappeared, and the patient made a complete recovery. The other case occurred in the person of a captain in the Royal Navy, æt. about 60. The priapism was complicated by a phimosis (necessitating incision) and by urethritis. The priapism yielded on the fifth day after treatment, with colchicum and alkalies and a farinaceous diet. There were occasional attacks of gout in the right foot. Another similar attack in the penis occurred a year subsequently.

¹ The term "priapism" is sometimes applied to any morbid tendency to prolonged or painful erections of the penis. It is probable that the cases recorded as priapism of very long duration (a year or more) belong to this intermittent class.

² *Vide* Sir Dyce Duckworth, "Case of Gout in the Penis," *Trans. Clin. Soc. London*, 1892, vol. xxv. p. 97.

Persistent priapism has been several times observed in the course of leukæmia, and W. von Leube¹ remarks that as this persistent priapism is altogether so rare a condition it may be allowed some consideration as a symptom of leukæmia. A. H. Ward² has recently described an example illustrating this point. The patient was a small, weedy-looking man, and subsequent examination of his blood showed him to be the subject of leukæmia. The erection came on suddenly after getting into bed, and was entirely confined to the corpora cavernosa, whilst the substance of the glans penis and corpus spongiosum could be felt flaccid. Owing to the pain and straining during micturition, a soft catheter had to be used during several days. By the end of the fourth week the priapism was much less, and the penis fell forwards when the man stood up. By the end of the eighth week the penis was almost normal, but one or two indurated masses remained in the crura.

In this case the spleen was much enlarged, and enlarged lymphatic glands could be felt in the groins, axillæ, and sides of the neck. The ratio of white to red corpuscles was given as one to eight, and on another occasion as one to two.

Dr. Ward has tabulated twelve other published cases of priapism, persisting for different periods, varying from nineteen days to seven weeks. The ages of the patients (not mentioned, however, in two cases) ranged from 26 to 55. Of these cases, one at least was complicated, like Dr. Ward's case, with leukæmia, and one had a large spleen from previous intermittent fever. One case is stated to have been complicated by severe hæmoptysis. One case, like Sir Dyce Duckworth's, was associated with gout. In one case there had been a previous attack of prolonged priapism, and in another case two previous attacks. In four cases the condition was started by sexual intercourse, in one case by straining at stool, and in one case by accident. In three cases the condition is said to have been followed by impotence. Dr. Ward also alludes to thirty-two cases of priapism, collected by Mr. G. L. Peabody,³ six of which were complicated with enlarged spleens.

Many drugs have been employed in cases of persistent priapism, including iodide of potassium, colchicum, calomel, magnesia, bicarbonate of potassium, sulphate of magnesium, other purgatives, opium, bromides, camphor, and chloral. Locally, fomentations of lead lotion, ice, leeches, mercury and belladonna ointment, oleate of morphia, etc., have been applied.

If such cases are all due to thrombosis, as they probably are, the simplest method of treatment, that by rest in bed, must often be almost sufficient in itself. Pain, constipation, and difficult

¹ *Vide* "Spec. Diagnose," Leipzig, 1895, Bd. ii. S. 312.

² *Lancet*, London, 1897, vol. i. p. 1143.

³ "On Persistent Priapism, not connected with Lesion of the Central Nervous System," *New York Med. Journ.*, 1880, vol. xxxi. p. 463.

micturition may, however, be troublesome enough to necessitate special measures. Gout, leukaemia, and anaemia, if present, require treatment.

In some cases of prolonged priapism, probably due to thrombosis, fluctuation in the diseased organ has been stated, as in Dr. Ward's case, to have been temporarily felt. Commencing suppuration is therefore likely to be thought of, and on this supposition the medical man might easily be induced to make an incision to let out the pus. Yet Dr. Ward's case cleared up without any operative interference, and he suggests that this temporary feeling of fluctuation may be accounted for by softening of the clot. Even in Dr. W. H. Crago's case,¹ where localised fluctuation was, for some reason or other, accompanied by rigors, and where there was œdema of the prepuce, no incision was made, and no abscess formation took place. It is noteworthy that out of the three cases collected by Dr. Ward, in which incisions were made, in two suppuration took place.

¹ *Australian Med. Gaz.*, December 1888, p. 61.

